
GLOSSARY

A

abutment	A structure that supports the ends of a dam or bridge.
accretion	Gradual increase in flow of a stream due to seepage, ground-water discharge, or tributary inflow.
acre-foot	Volume of water (43,560 cubic feet) that would cover 1 acre to a depth of 1 foot.
active storage	Reservoir capacity that can be used for authorized purposes.
aerate	To supply or charge with gas, usually air.
affected environment	Existing biological, physical, social, and economic conditions of an area subject to change, both directly and indirectly, as the result of a proposed human action.
aggradation	Process of filling and raising the level of a streambed, flood plain, or sandbar by deposition of sediment. The opposite of degradation.
algae	Simple plants containing chlorophyll; most live submerged in water.
alluvium	Sedimentary material transported and deposited by the action of flowing water.
ambient	Surrounding natural conditions (or environment) in a given place and time.
amphibian	Vertebrate animal that has a life stage in water and a life stage on land (e.g., salamanders, frogs and toads).
arroyo	A gully or channel cut by an ephemeral stream.

B

backwater	A relatively small, generally shallow area of a river with little or no current.
banked groundwater	Water that has been stored temporarily in a groundwater aquifer. Banked groundwater can be recovered for use at a later time.
base load	Minimum load in a power system over a given period of time.
baseload plant	Powerplant normally operated to carry base load; consequently, it operates essentially at a constant load.

Basin States	The seven states referred to in the Compact as making up the Colorado River watershed; Wyoming, Colorado, Utah, Nevada, Arizona, New Mexico and California.
benthic	Bottom of rivers, lakes, or oceans; organisms that live on the bottom of water bodies.
biological opinion	Document stating the U.S. Fish and Wildlife Service and the National Marine Fisheries Service opinion as to whether a Federal action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat.
 C	
candidate species	Plant or animal species not yet officially listed as threatened or endangered, but which is undergoing status review by the U.S. Fish and Wildlife Service.
catch	At a recreational fishery, refers to the number of fish captured, whether they are kept or released. (<i>See harvest.</i>)
channel margin bar	Narrow sand deposits which continuously or discontinuously line the riverbank.
cladophora	Filamentous green alga important to the food chain in the Colorado River below Glen Canyon Dam.
Colorado River Basin	The drainage basin of the Colorado River in the United States.
Colorado River Basin Salinity Control Forum	The organization dedicated to controlling Colorado River Salinity consisting of representatives of the seven Basin States
commercial river trip	Trip organized by a boating company that conducts tours for paying passengers.
Compact	The Colorado River Compact of 1922
compact point	The reference point designated by the Colorado River compact dividing the Upper and Lower Colorado River Basins – Lee Ferry, Arizona.
Congress	United States Congress
consumptive use	The total water diversions from the Colorado River, less return flows to the river.

Cooperating Agency	With respect to the NEPA process, an agency having jurisdiction by Law or special expertise concerning an aspect of a proposed project action that is requested by the Lead Agency to participate in the preparation of an Environmental Impact Statement.
coordinated operation	Generally, the operation of two or more interconnected electrical systems to achieve greater reliability and economy. As applied to hydropower resources, the operation of a group of hydropower plants to obtain optimal power benefits with due consideration for all other uses.
Court	United States Supreme Court
criteria	Standards used for making a determination.
Critical habitat	Specific areas with physical or biological features essential to the conservation of a listed species and which may require special management considerations or protection. These areas have been legally designated via Federal Register notices.
cubic foot per second (cfs)	A measure of water flow equal to one cubic foot of water passing a point on the stream in 1 second of time.
cultural resource	Building, site, district, structure, or object significant in history, architecture, archeology, culture, or science.
D	
dead storage	Reservoir space from which stored water cannot be evacuated by gravity.
Decree	Decree entered in <i>Arizona v. California</i>
delta	Sediment deposit formed at the mouths of the Colorado River and other rivers where they enter Lake Powell, Lake Mead or the Gulf of California.
depletion	Loss of water from a stream, river, or basin resulting from consumptive use.
deposition	Settlement of material out of the water column and on to the streambed. Occurs when the energy of flowing water is unable to support the load of suspended sediment.
discharge (flow)	Volume of water that passes a given point within a given period of time; expressed in this document in cfs.

dissolved oxygen (DO)	Amount of free oxygen found in water; perhaps the most commonly employed measurement of water quality. Low DO levels adversely affect fish and other aquatic life. The ideal dissolved oxygen for fish life is between 7 and 9 mg/L; most fish cannot survive when DO falls below 3 mg/L.
drawdown	Lowering of a reservoir's water level; process of depleting reservoir or groundwater storage.
E	
ecosystems	Complex system composed of a community of fauna and flora and that system's chemical and physical environments.
eddy	Current of water moving against the main current in a circular pattern.
electric power system	Physically connected electric generating, transmission, and distribution facilities operated as a unit under one control.
electrical demand	Energy requirement placed upon a utility's generation at a given instant or averaged over any designated period of time.
endangered species	A species or subspecies whose survival is in danger of extinction throughout all or a significant portion of its range.
energy	Electric capacity generated and/or delivered over time.
epilimnion	<i>See stratification.</i>
euphotic	Of, relating to, or constituting the upper layers of a body of water into which sufficient light penetrates to permit growth of green plants.
eutrophic	A body of water, often shallow, containing high concentrations of dissolved nutrients with periods of oxygen deficiency.
excess capacity	Power generation capacity available on a short-term basis in excess of the firm capacity available through long-term contracts.

F

firm energy or power	Non-interruptible energy and power guaranteed by the supplier to be available at all times except for reasons of uncontrollable forces or "continuity of service" contract provisions.
flood control pool	Reservoir volume above the active conservation and joint-use pool that is reserved for flood runoff and then evacuated as soon as possible to keep that space in readiness for the next flood.
flow	Volume of water passing a given point per unit of time expressed in cfs. <i>peak flow</i> – Maximum instantaneous flow in a specified period of time. <i>return flow</i> – Portion of water previously diverted from a stream and subsequently returned to that stream or to another body of water.
forage fish	Generally, small fish that reproduce prolifically and are consumed by predators.
forebay	Impoundment immediately above a dam or hydroelectric plant intake structure. The term is applicable to all types of hydroelectric developments (storage, run-of-river, and pumped-storage).
fry	Life stage of fish between the egg and fingerling stages.
fuel replacement energy	Electrical energy generated at a hydroelectric plant as a substitute for energy which would have been generated by a thermal electric plant.
full pool	Volume of water in a reservoir at maximum design elevation.

G

gamete(s)	Mature egg(s).
gaging station	Specific location on a stream where systematic observations of hydrologic data are obtained through mechanical or electrical means
gigawatt-hour (GWh)	One billion watt-hours of electrical energy.

H

headwater	The source and upper part of a stream.
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herbivore	Animal that feeds on plants.
heterogeneous	Consisting of dissimilar ingredients or constituents.
hydrology	Science dealing with natural runoff and its effect on streamflow.
hydroelectric power	Electrical capacity produced by falling water.
hypolimnetic zone	The deep portion of a lake or reservoir volume generally classified as below the level of the thermocline.
hypolimnion	<i>See stratification.</i>
I	
impoundment	Body of water created by a dam.
inflow	Water flowing into a lake or reservoir from a river and/or its tributaries; or water entering a river from tributaries.
J-K	
jeopardy opinion	U.S. Fish and Wildlife Service or National Marine Fisheries Service opinion that an action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. The opinion includes reasonable and prudent alternatives, if any.
juvenile	Young fish older than 1 year but not having reached reproductive age.
L	
larval fish	An immature stage that develops from the fertilized egg before assuming the characteristics of the adult.
Las Vegas Valley	The topographic basin containing the City of Las Vegas, the City of North Las Vegas, the City of Henderson, and certain unincorporated townships of Clark County.
Las Vegas Wash	The natural drainage channel for the entire Las Vegas Valley. It is dominated by wastewater flows from the City of Las Vegas, Clark County Sanitation District, and City of Henderson wastewater treatment plants. It terminates in the Las Vegas Bay of Lake Mead.

Law of the River	As applied to the Colorado River, a combination of Federal and State statutes, interstate compacts, court decisions and decrees, Federal contracts, an international treaty with Mexico and formally determined operating criteria.
Lead Agency	The agency initiating and overseeing the preparation of an environmental impact statement.
Lee Ferry	A reference point marking division between the Upper and Lower Colorado River Basins. The point is located in the mainstream of the Colorado River 1 mile below the mouth of the Paria River in Arizona.
Lees Ferry	Location of Colorado River ferry crossings (1873 to 1928) and site of the USGS stream gage above the Paria River confluence.
limnology	Scientific study of the physical characteristics and biology of lakes, ponds, and streams.
load	Amount of electrical power or energy delivered or required at a given point.
Lower Basin	The part of the Colorado River watershed below Lee Ferry, Arizona; covers parts of Arizona, California, Nevada, New Mexico, and Utah.
Lower Division	A division of the Colorado River system that includes the States of Arizona, Nevada, and California.
Lower Division States	Arizona, California and Nevada as defined by Article II of the Colorado River Compact of 1922.
M	
median	Middle value in a distribution, above and below which lie an equal number of values.
megawatt (MW)	One million watts of electrical power (capacity).
megawatt-hour (MWh)	One million watt-hours of electrical energy.
mesotrophic	The intermediate level of a lake or reservoir trophic state, less productive with respect to algal biomass and nutrient levels than a eutrophic water body, but more productive than an oligotrophic lake or reservoir.
milligram per liter	Equivalent to 1 part per million.
Minute 242	Minute 242, August 30, 1973 of the International Boundary and Water Commission pursuant to the Mexican Water Treaty. Similar to an amendment.

morphometry	A branch of limnology that deals with the morphological measurements of a lake and its basin.
N	
no jeopardy opinion	U.S. Fish and Wildlife Service or National Marine Fisheries Service opinion that an action is not likely to jeopardized the; continued existence of a listed species or result in the destruction or adverse modification of critical habitat.
O	
off-peak energy	Electric energy supplied during periods of relatively low system demand.
oligotrophic	A body of water characterized by low dissolved plant nutrient and organic matter, and rich in oxygen at all depths.
on-peak energy	Electric energy supplied during periods of relatively high system demand.
P-Q	
Pacific Institute	Pacific Institute for Studies in Development, Environment and Security
peak load	Maximum electrical demand in a stated period of time.
pelagic	Of, relating to, or living or occurring in open water.
penstock	Conduit pipe used to convey water under pressure to the turbines of a hydroelectric plant.
permeability (soil)	Ease with which gasses, liquids, or plant roots penetrate or pass through a layer of soil.
PM_{2.5}	Particulate matter less than 2.5 microns in mean diameter.
PM₁₀	Particulate matter less than 10 microns in mean diameter.
power	Electrical capacity generated, transferred or used.
public involvement	Process of obtaining citizen input into each stage of development of planning documents. Required as a major input into any EIS.

R

ramp rate	The rate of change in instantaneous output from a powerplant. The ramp range is established to prevent undesirable effects due to rapid changes in loading or, in the case of hydroelectric plants, discharge.
rated head	Water depth for which a hydroelectric generator and turbines were designed.
reach	A specified segment of a stream, channel, or other water conveyance.
recruitment	Survival of young plants and animals from birth to a life stage less vulnerable to environmental change.
redd	Depression in river or lake bed dug by fish for the deposition of eggs.
return flow credit	Water returned to the Colorado River that can be rediverted in the same year. Diverted Colorado River water that is returned to the river in the year in which it was diverted is credited against a water user's total diversions.
riffle	A stretch of choppy water caused by an underlying rock shoal or sandbar.
riparian	Of, on, or pertaining to the bank of a river, pond, or lake.
riparian obligate	A species dependent upon riparian habitat.
RiverWare	A commercial computer river system simulation "platform" that was coupled with a similar program, CRSS to perform the operational modeling for this EIS.

S

salinity	A measure of dissolved minerals (or total dissolved solids) in water.
Secchi disk	Instrument used to determine the depth to which light penetrates lake water. Used as an aid to establish the euphotic zone, which marks that area of a lake where primary productivity (energy production by photosynthesis) occurs.
sediment	Unconsolidated solid material that comes from weathering of rock and is carried by, suspended in, or deposited by water or wind.

sediment load	Mass of sediment passing through a stream.
seepage	Relatively slow movement of water through a medium, such as sand.
spawn	To lay eggs, especially fish.
spawning beds	Places in which eggs of aquatic animals lodge or are placed during or after fertilization.
spills	Water releases from a dam in excess of powerplant capacity.
spillway	Overflow channel of a dam.
spinning reserves	Available capacity of generating facilities synchronized to the interconnected electric system where it can be called upon for immediate use in response to system problems or sudden load changes.
stage	Water surface elevation.
stratification	Thermal layering of water in lakes and streams. Lakes usually have three zones of varying temperature: (1) <i>epilimnion</i> – top layer with essentially uniform warmer temperature; (2) <i>metalimnion</i> – middle layer of rapid temperature decrease with depth; and (3) <i>hypolimnion</i> – bottom layer with essentially uniform colder temperatures.

T

tailwater	Water immediately downstream of a dam.
thermocline	The zone of maximum change in temperature in a water body, separating upper (epilimnetic) from lower (hypolimnetic) zones.
total dissolved solids (TDS)	A measure of the inorganic or mineral content of water.
traditional cultural property	A site or resource that is eligible for inclusion in the <i>National Register of Historic Places</i> because of its association with cultural practices or beliefs of a living community.
tributary	River or stream flowing into a larger river or stream.
turbidity	Cloudiness of water, measure by how deeply light can penetrate into the water from the surface.

U-V

Upper Basin

The part of the Colorado River watershed above Lee Ferry, Arizona; covers parts of Arizona, Colorado, New Mexico, Utah, and Wyoming.

Upper Colorado River Commission

Commission established by the Upper Colorado River Basin Compact of appointed members from the Upper Division States whose purpose is to secure the storage of water for beneficial consumptive use in the Upper Basin.

Upper Division

A division of the Colorado River system that includes the states of Colorado, New Mexico, Utah, and Wyoming.

W-X

watershed

Surface drainage areas above a specified point on a stream.

wheeling

Smaller bodies of water entering into the Colorado River are considered Colorado River water upon contact. This water is then subject to the laws of the Colorado River Compact. If the water is diverted prior to reaching the Colorado River, it can be separately developed and put to use outside the limitations of the Colorado River Compact. If “wheeling” is approved by the United States Government, this water could be transferred from one state to another, or within a state, using the Colorado River as a conveyance system.

Y-Z

young-of-year

Small fish, hatched from eggs spawned in the current year.